

UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF NEW YORK

FILE NUMBER: 10-CV-6546FPG-MWP

ROBERT COENE AND VALERIE COENE,) (C-O-N-T-I-N-U-A-T-I-O-N)
)
 PLAINTIFFS,) D-E-P-O-S-I-T-I-O-N
)
 VS.) OF
)
 3M COMPANY, AS SUCCESSOR BY) WILLIAM J. MEGGS, M.D.
 MERGER TO MINNESOTA MININO &)
 MANUFACTURING COMPANY AND/OR)
 ITS PREDECESSORS/SUCCESSORS)
 IN INTEREST, DTM CORPORATION,)
 VALIMET, INC., POTTERS)
 INDUSTRIES, INC., AND)
 ARKEMA, INC.)
)
 DEFENDANTS.)

*
ON NOVEMBER 16, 2015, AT THE OFFICES OF CAROLINA COURT REPORTERS, 105 OAKMONT DRIVE, SUITE A, GREENVILLE, NORTH CAROLINA 27858.

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STIPULATIONS: PRIOR TO THE GIVING OF ANY TESTIMONY BY THE WITNESS, IT WAS EXPRESSLY STIPULATED AND AGREED BETWEEN THE PARTIES TO THIS ACTION, THROUGH THEIR RESPECTIVE COUNSEL, THAT:

1. BY NOTICE AND/OR CONSENT, THE CONTINUATION OF THE DEPOSITION OF WILLIAM MEGGS, M.D., WAS TAKEN ON THE 16TH DAY OF NOVEMBER, 2015, BEGINNING AT 12:09 P.M., AT THE OFFICE OF CAROLINA COURT REPORTERS IN GREENVILLE, NORTH CAROLINA, BEFORE GAYE H. PAUL, A COURT REPORTER AND NOTARY PUBLIC IN AND FOR THE COUNTY OF BEAUFORT.

2. READING AND SIGNING OF THE TRANSCRIPT OF TESTIMONY BY THE WITNESS IS NOT WAIVED. CHANGES TO THE TRANSCRIPT MAY BE MADE IN THE WITNESS'S OWN HAND, OUT OF THE PRESENCE OF THE OFFICER, DELINEATED BY PAGE AND LINE NUMBER ON THE ERRATA SHEET TO THE SIGNATURE PAGE.

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1 WILLIAM J. MEGGS, M.D., BEING BY ME FIRST DULY
 2 SWORN TO SPEAK THE TRUTH, DEPOSES AND SAYS:
 3 ON EXAMINATION CONDUCTED BY MR. KIM J. SVESKA:
 4 Q. Would you state your name for the record,
 5 please?

6 A. William Joel Meggs.
 7 Q. Dr. Meggs, as you know, my name is Kim Sveska.
 8 I'm here on behalf of 3M Company; I'm going to be taking your
 9 deposition today, again. Before we started, you were kind
 10 enough to segregate the materials you have brought with you
 11 into two piles, one which is more current, or recently
 12 reviewed, I understand, and the second pile was the old
 13 materials that you have.

14 Let me start with this background. Did you
 15 bring a fresh copy of your CV?

16 A. No, but there's been no material changes, maybe
 17 a couple of articles or talks added, or abstracts, but
 18 nothing that relates to this case.

19 MR. MARTIN: May I?
 20 MR. SVESKA: Sure. Go ahead, Mike.
 21 MR. MARTIN: There was also a flash drive that I
 22 gave him. Did you bring that?
 23 DR. MEGGS: (Places flash drive on table.)
 24 Q. Do you know what's on that flash drive, Dr.
 25 Meggs?

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1 A. Yes. It's a deposition of, I think Dr. Whysner.
 2 There are some CT scan images that, unfortunately, I could
 3 not open, because my machine didn't have the right software
 4 to download it. There were a few other -- you could open it
 5 and you could see it. That might be the easiest. There were
 6 about five or six things. I don't have the list memorized,
 7 but it was a few of defense expert reports and things.

8 Q. Maybe, when we take a break, I'll use that
 9 opportunity to review what's on it, and if need be, I can ask
 10 you more questions about it after I do that.

11 A. Okay.
 12 Q. So, getting back to the questions where I had
 13 just left off, so you've indicated that you haven't had any
 14 substantive changes to your CV which would in any way impact
 15 upon this case, meaning, for example, you haven't done any
 16 research, you haven't published anything, haven't given any
 17 lectures relevant to anything related to this case; right?

18 A. Right.
 19 Q. How about your practice; is there anything
 20 significant in terms of changes to your day-to-day practice
 21 of medicine?

22 A. No.
 23 Q. Let me take a look at the material you have in
 24 front of you, sir.
 25 A. Okay.

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<p style="text-align: center;">6</p> <p>1 Q. Just pass them over, and I'll take a quick look, 2 and, then, I'll figure out how I want to approach asking you 3 questions.</p> <p>4 A. The MSDS's are old, but they were attached to 5 that Affidavit.</p> <p>6 Q. All right, we'll come back to that. What else 7 do you have there, sir?</p> <p>8 A. A CT scan report of the abdomen in 2009.</p> <p>9 Q. Just so we're on the same page, this is a June 10 4, 2009 Radiology Report from a Dr. Mark Kahn about Mr. Coene 11 and a abdominal CT?</p> <p>12 A. That's correct.</p> <p>13 Q. Is there anything specific about this that you 14 intend to offer any commentary on?</p> <p>15 A. His spleen was of normal size.</p> <p>16 Q. Contrasted with the IME, which suggested that it 17 was enlarged?</p> <p>18 A. That's correct.</p> <p>19 Q. Anything else that this is relevant to?</p> <p>20 A. That's why I pulled it out and highlighted it. It's the only documented objective determination of his spleen size that I have found in the records.</p> <p>21 Q. There weren't any later CT's more close in time 22 to the IME, which I believe was some time in 2013?</p> <p>23 A. There was a CT of the chest in 2012, and I did</p>	<p style="text-align: center;">8</p> <p>1 you're going to have on this, this is from a Board Certified 2 Radiologist, who actually looked at the films; is that your 3 understanding?</p> <p>4 A. That's correct.</p> <p>5 Q. And the CT's, right?</p> <p>6 A. Correct.</p> <p>7 Q. Are you intending to say that you think he got 8 it wrong?</p> <p>9 A. Yes. My statement would be that it is 10 absolutely impossible for a radiologist to make a diagnosis 11 of sarcoidosis based on comparing two CT scans. The 12 diagnostic criteria for sarcoidosis is very specific. It's 13 the presence on biopsy of noncaseating granulomas, and there 14 can be highly variable patterns in both silicosis and 15 sarcoidosis.</p> <p>16 These can change with time, and it's just 17 irrelevant, because you cannot make a diagnosis of 18 sarcoidosis. You can give an opinion -- well, in my opinion, 19 I think this favors sarcoidosis over the silicosis, but 20 that's just an opinion. It's different from the opinion of 21 the radiologist who read the film as a treating physician's 22 referral to Radiology. And it's inconsistent with the chest 23 x-ray done on the same day.</p> <p>24 Q. In your day-to-day practice, you probably do 25 some reviews of CT scans and regular chest x-rays; right?</p>
<p style="text-align: center;">7</p> <p>1 not see a report of the spleen size on that CT.</p> <p>2 Q. You wouldn't expect to see a report of a spleen 3 on a high contrast chest CT, would you?</p> <p>4 A. You could, because you might catch the spleen. Probably not the whole spleen, if it was enlarged. But the spleen does tuck up under the diaphragm, so you do see, you know, the top of the spleen. And I didn't see them comment one way or another on that report.</p> <p>5 Q. So, getting to where I was headed, you don't 6 have any subsequent abdominal or other CT's that show one way 7 or the other whether the spleen was enlarged?</p> <p>8 A. That's correct.</p> <p>9 Q. All right, let's continue with the materials. 10 Next item is a letter to me dated June 18, 2013, from Dr. 11 Charles White, who is a radiologist. Is this something that 12 you are looking at from a background perspective, since 13 you're not a radiologist?</p> <p>14 A. Well, the significance of this is the sentence, 15 last sentence into the third last paragraph, "Thus the 16 radiographic features are more consistent with sarcoidosis 17 than silicosis." So that's why I highlighted this. And I 18 also attached the reading of the chest CT that he reviewed, 19 and the chest x-ray that was done the same day, I guess, 20 September 28, 2012.</p> <p>21 Q. So, again, so I know what commentary, if any,</p>	<p style="text-align: center;">9</p> <p>1 A. All the time.</p> <p>2 Q. But you're not a Board Certified Radiologist; 3 right?</p> <p>4 A. That's correct.</p> <p>5 Q. So you are not allowed to, in the medical 6 setting, offer a formal report opining or -- let me start 7 that over. You're not able to offer a formal report on a CT 8 or a chest x-ray, as would a radiologist; right?</p> <p>9 A. That's correct.</p> <p>10 Q. What do we have next?</p> <p>11 MR. MARTIN: Did you want to add something, 12 Doctor?</p> <p>13 A. Well, you know, I confer with radiologists all 14 the time, and I have convinced radiologists -- or I have not 15 convinced, but I have discussed cases with radiologists, and 16 they've changed their opinion, and I know the diagnosis of 17 sarcoidosis and I know the radiologist cannot make that 18 diagnosis from a CT scan. And I think any radiologist would 19 agree with that. And, if you just read them, the diagnostic 20 criteria for sarcoidosis, they would say yes, you're right; I 21 can give an opinion it favors one diagnosis over another, 22 based on certain reasons, but I cannot make a diagnosis.</p> <p>23 Q. What's next?</p> <p>24 A. This is a follow-up report --</p> <p>25 Q. You can just hand it to me.</p>

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<p style="text-align: right;">10</p> <p>1 A. -- by me, with attached references.</p> <p>2 Q. And we'll get back to that. What else do you</p> <p>3 have?</p> <p>4 MR. MARTIN: Can we mark it?</p> <p>5 MR. SVESTA: We will.</p> <p>6 MR. MARTIN: Okay.</p> <p>7 A. This is an Affidavit by Dr. Jeffrey Marshick, a</p> <p>8 treating physician. And that's dated October 22, 2013.</p> <p>9 Q. We'll get back to that. What else do you have?</p> <p>10 A. This is Plaintiff's Memorandum of Law in</p> <p>11 Response to Defendants' Galbert Motion and Motion for Summary</p> <p>12 Judgment.</p> <p>13 Q. Would it be fair to characterize this in your</p> <p>14 hands as for academic curiosity as opposed to anything</p> <p>15 specific in your field and in your opinions?</p> <p>16 A. In terms of the legal citations, that's</p> <p>17 absolutely correct.</p> <p>18 Q. Let's see what you have next.</p> <p>19 A. Well, this is just a -- this, I think, is not</p> <p>20 old, but I think it's very important, particularly, with our</p> <p>21 recent comments. It's The American Thoracic Society Medical</p> <p>22 Section of the American Lung Association's Statement on</p> <p>23 Sarcoidosis, which just very briefly states how you make the</p> <p>24 diagnosis. It's based on a biopsy showing noncaseating</p> <p>25 granulomas.</p>	<p style="text-align: right;">12</p> <p>1 be excluded." Did I get that right?</p> <p>2 A. That's correct.</p> <p>3 Q. Last time I took your deposition, I believe you</p> <p>4 said you had seen sarcoid, but it had been many years; is</p> <p>5 that accurate, do you remember?</p> <p>6 A. No. I saw a -- well, it's not accurate right</p> <p>7 now. I saw a case a couple of weeks ago.</p> <p>8 Q. Well, I was going to get to it now in a minute.</p> <p>9 Do you recall that, in general, you told me at the last</p> <p>10 setting of your deposition that you had seen sarcoid, but it</p> <p>11 was certainly not a major focus, and you couldn't remember</p> <p>12 the last time, or it was a long time ago that you'd seen one?</p> <p>13 A. I don't recall saying that. But I do see cases</p> <p>14 from time to time as a treating physician -- not a treating</p> <p>15 physician of sarcoid, except to treat acute exacerbations.</p> <p>16 Q. When's the last time you made the actual</p> <p>17 diagnosis of sarcoid -- lung sarcoid; ever?</p> <p>18 A. Well, I don't -- I would say never, because I</p> <p>19 don't read biopsies, and it's diagnosed by biopsy, read by a</p> <p>20 pathologist. I have seen individuals for whom sarcoidosis</p> <p>21 would be in the differential diagnosis, and referred them to</p> <p>22 a pulmonologist.</p> <p>23 Q. A pulmonologist would be the proper specialty to</p> <p>24 diagnose lung sarcoid; right?</p> <p>25 A. That's correct.</p>
<p style="text-align: right;">11</p> <p>1 Q. This is something that you pulled after your</p> <p>2 last deposition?</p> <p>3 A. No. I think I had it before. But, in my review</p> <p>4 of the file, I felt that was such an important issue, given</p> <p>5 that the defense experts are saying or diagnosing</p> <p>6 sarcoidosis. Nobody has diagnosed sarcoidosis. The</p> <p>7 diagnosis is very specific. It requires a biopsy and very</p> <p>8 specific findings on biopsy.</p> <p>9 MR. MARTIN: I do think it was produced at the</p> <p>10 last deposition, though, for the record.</p> <p>11 MR. MEGGS: Yes.</p> <p>12 A. But, given the radiology report and so forth, I</p> <p>13 thought that was such an important issue that I pulled out</p> <p>14 the first page. I think the full article is in there</p> <p>15 somewhere, and was an exhibit to the last one.</p> <p>16 MR. SVESKA: Off the record for a second.</p> <p>17 COURT REPORTER'S NOTE: (A very brief off-the-</p> <p>18 record break was taken.)</p> <p>19 Q. Doctor, we're going to mark this as Exhibit [1]</p> <p>20 for identification. It's a Statement on Sarcoidosis from The</p> <p>21 American Thoracic Society. It's Vintage 1999. The quote you</p> <p>22 are referring to is "The diagnosis is established when</p> <p>23 clinico-radiological findings are supported by histological</p> <p>24 evidence of noncaseating epithelioid cell granulomas.</p> <p>25 Granulomas of known causes and local sarcoid reactions must</p>	<p style="text-align: right;">13</p> <p>1 Q. And, although I know you are quad-boarded, one</p> <p>2 of them is not pulmonology?</p> <p>3 A. That's correct.</p> <p>4 Q. What's next?</p> <p>5 A. This is just some additional things on silicosis</p> <p>6 that I don't think I had. It's a couple of Wikipedia</p> <p>7 articles that I just pulled for general background</p> <p>8 information, and one of these -- and I went to the primary</p> <p>9 reference. I don't know The Court's standing on how</p> <p>10 definitive Wikipedia is. And, just the OSHA thing that had</p> <p>11 some information in it, I thought was relevant, that I pulled</p> <p>12 off line. It's really just background on glass and how it</p> <p>13 behaves, and they just relate to the whole process of --</p> <p>14 Q. The two items from Wikipedia, one is dated 11-</p> <p>15 14-2015, titled Devitrification. The other one is of the</p> <p>16 same date, and it's titled Glass Transition. I think I</p> <p>17 understand your testimony so far. This was just some</p> <p>18 background information; you don't intent to rely specifically</p> <p>19 on anything that's coming to you from Wikipedia?</p> <p>20 A. Not really, no.</p> <p>21 Q. Item next is a Frequently Asked Questions</p> <p>22 Section on something called Silica Advisor, and it appears to</p> <p>23 be an official publication or web print out from OSHA, US</p> <p>24 OSHA. It also has an exhibit sticker on it. Do you know how</p> <p>25 that occurred?</p>

<p style="text-align: center;">14</p> <p>1 MR. MARTIN: That was actually from the Whysner 2 deposition.</p> <p>3 MR. SVESKA: Oh, okay.</p> <p>4 MR. MARTIN: Which would be on that flash drive. 5 So he must have printed it off there.</p> <p>6 MR. SVESKA: Thank you for your help.</p> <p>7 MR. MARTIN: You're welcome.</p> <p>8 MR. SVESKA: I can't remember what Item 29 was 9 from a dep last week, let alone one, two years ago.</p> <p>10 MR. MARTIN: The only reason that I know that is 11 because I looked at it yesterday.</p> <p>12 Q. So you printed this off?</p> <p>13 A. Yes.</p> <p>14 Q. Is there anything specific in here that you 15 intend to offer any commentary on?</p> <p>16 A. I think there was just a comment in there about 17 -- I think I marked it with a highlighter -- about you have 18 to worry about silicosis if you're removing fiberglass.</p> <p>19 Q. To be more specific, I'll see if I can recap 20 what this is saying, and have you fix it, if I don't get it 21 correct.</p> <p>22 They're talking about removing fire brick, 23 fiberglass or insulation from a furnace that has been in 24 active use, and they're talking about the heating of those 25 elements might have created some silica. In general, did I</p>	<p style="text-align: center;">16</p> <p>1 MR. MARTIN: Objection to form. 2 A. I'm not sure. 3 Q. Well, hand it over and let me get more specific. 4 A. It discussed the physics of these transitions, 5 which is very important to know when you render an opinion. 6 I think it supports that there will be crystalline silica 7 formed at Mr. Coene's work place, and that's Coene, 8 C-O-E-N-E.</p> <p>9 Q. Having looked at it now in greater detail, it 10 strikes me that you could be saying that this provides you 11 with some information which suggests that it's possible for a 12 glass to be turned into a crystalline silica form, but it 13 really doesn't provide you with any specifics that would be 14 translatable into this case in particular. Is that a fair 15 characterization?</p> <p>16 A. No.</p> <p>17 Q. Okay. Maybe you can show me, then, what 18 specifically in that article allows you to discuss the -- or 19 allows you to apply what's in that article to this case.</p> <p>20 A. Well, this and the other articles demonstrate 21 the physics of what happens to silica when you heat it to 22 different temperatures and subject to different pressures and 23 so forth. And they support that over a wide range of 24 parameters, even in sintering, that you're going to get 25 crystalline silica formed.</p>
<p style="text-align: center;">15</p> <p>1 get that right?</p> <p>2 A. That's correct.</p> <p>3 Q. So, again, this is more of a background kind of 4 thing?</p> <p>5 A. Correct.</p> <p>6 Q. Item last in the stack is an article from 7 Entropy, E-N-T-R-O-P-Y, 2008 article entitled Configurons 8 Thermodynamic Parameters and Symmetry Changes at Glass 9 Transitions, by a gentleman named Ojovan, O-J-O-V-A-N. And 10 it appears to be a fairly detailed scientific article dealing 11 with thermodynamics at glass transition points; did I get 12 that right?</p> <p>13 A. Correct.</p> <p>14 Q. Do you intend to rely on that in any specific 15 way in this case, or is this also background?</p> <p>16 A. It relates to the issue of amorphous glass and 17 crystalline silican forming in it, as you change the 18 temperature, and the pressure, and impurities, and surface 19 boundary areas, all sorts of things. It's a very interesting 20 article, very instructive.</p> <p>21 Q. Again, it provides you with some background, but 22 it doesn't really provide you with the specifics that would 23 apply to this case.</p> <p>24 MR. MARTIN: Objection.</p> <p>25 Q. Is that a fair characterization?</p>	<p style="text-align: center;">17</p> <p>1 These "background articles" that may not apply 2 specifically show that in virtually all situations you have 3 some crystalline silican formed as you increase the 4 temperature to very high temperatures, the percent that forms 5 crystalline silica goes away -- doesn't go away -- it is 6 reduced up to, you know, 1,000 degrees celsius or whatever. 7 But you have some formed throughout the 8 spectrum, the parameters that have measured and discussed.</p> <p>9 Q. I understand what you just said, and I'm going 10 to come back to where I was headed, and I think maybe we'll 11 agree on this. This deals with concepts and conceptually 12 that glass can be turned into crystalline silica under the 13 right conditions; right?</p> <p>14 A. That it is turned into crystalline silica over a 15 huge range of conditions.</p> <p>16 Q. It doesn't apply specifically to selective laser 17 sintering, or now what's called 3D printing though, does it?</p> <p>18 A. I think it does.</p> <p>19 Q. All right, well let's mark that as Exhibit [2]. 20 Maybe you can show me on what page they mention selective 21 laser sintering or 3D printing.</p> <p>22 A. Well, I didn't say they mentioned it. What I 23 said was they showed it over -- in bulk, these articles show 24 that over a wide range of conditions, even the conditions 25 reasonably expected in this case, that some crystallization</p>

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<p style="text-align: center;">18</p> <p>1 occurs. There's one article in this packet --</p> <p>2 Q. Well, let's --</p> <p>3 MR. MARTIN: Let him finish.</p> <p>4 A. -- that actually shows the percent of sintering</p> <p>5 -- I mean, that shows the percent of crystallization that</p> <p>6 takes place with sintering versus temperature. And we know</p> <p>7 that from Mr. Coene's testimonies that there's a temperature</p> <p>8 in their temperature ranging things that they did, at which</p> <p>9 the material becomes fired. And, at that temperature in the</p> <p>10 experimental studies, you get crystalline glass forming.</p> <p>11 Q. Again, I get that. But the article that you</p> <p>12 have in front of you, which is labeled as Defendants' Exhibit</p> <p>13 Number [2], doesn't get into that level of detail. It gives</p> <p>14 you some parameters, but it doesn't say this can specifically</p> <p>15 happen with selective laser sintering.</p> <p>16 A. Not in this particular article. You're correct.</p> <p>17 Q. Getting back to your background, sir, since we</p> <p>18 last talked, have you seen any patients and made the</p> <p>19 diagnosis of silicosis?</p> <p>20 A. No.</p> <p>21 Q. Have you seen a patient that you believe to have</p> <p>22 been exposed to nylon or glass and developed any sort of</p> <p>23 disease associated with that, lung disease?</p> <p>24 A. No.</p> <p>25 Q. Have you ever made the diagnosis of anyone, with</p>	<p style="text-align: center;">20</p> <p>1 A. You don't care if I talked to Rhonda in his</p> <p>2 office about scheduling a deposition? No.</p> <p>3 Q. Have you obtained any information through any</p> <p>4 source relative to Mr. Coene's current clinical condition as</p> <p>5 of 2015?</p> <p>6 A. No. The last report I have is 2013, the letter</p> <p>7 by Dr. Marshick.</p> <p>8 Q. Which is the one I looked -- I'm looking at, at</p> <p>9 the moment?</p> <p>10 A. That's correct.</p> <p>11 Q. Which we're going to mark as Exhibit [3]. Do</p> <p>12 you have any understanding as to Mr. Coene's current clinical</p> <p>13 status?</p> <p>14 A. No.</p> <p>15 Q. Are you planning on offering any opinions as to</p> <p>16 Mr. Coene's clinical status and his potential prognosis?</p> <p>17 A. No. I'm relying on his treating physician for</p> <p>18 those opinions.</p> <p>19 Q. Is there anything else that you have done</p> <p>20 relative to this case that isn't embodied in any of the</p> <p>21 materials that are in front of us?</p> <p>22 A. This is a paper I put -- that I think is a very</p> <p>23 important paper for the case, and I don't know if I had it at</p> <p>24 the time of my deposition. That's why I set it aside.</p> <p>25 Q. All right, we'll get back to that. My question</p>
<p style="text-align: center;">19</p> <p>1 any patient, having any exposure to nylon or glass and then</p> <p>2 developed a lung disease?</p> <p>3 A. No.</p> <p>4 Q. Have you had any discussions with -- additional</p> <p>5 discussions with Mr. Coene?</p> <p>6 A. Yes.</p> <p>7 Q. Now, I know when we last talked, you had talked</p> <p>8 to him and obtained some background information, et cetera.</p> <p>9 I'm excluding that. You've talked to him since that</p> <p>10 discussion?</p> <p>11 A. That's correct.</p> <p>12 Q. When did you talk to him?</p> <p>13 A. Yesterday.</p> <p>14 MR. MARTIN: I think you're talking about me.</p> <p>15 A. Oh, Mr. Coene, I'm sorry. No, I have not had</p> <p>16 any further discussion with Mr. Coene.</p> <p>17 MR. SVESKA: Thank you again, Mark. We</p> <p>18 appreciate your help.</p> <p>19 Q. Have you had any discussions with any of the</p> <p>20 treating physicians?</p> <p>21 A. No.</p> <p>22 Q. Other than Mr. Martin, have you had any</p> <p>23 discussion with anyone whatsoever regarding this case? And I</p> <p>24 don't care if you talked to your wife about being here today;</p> <p>25 that's not included.</p>	<p style="text-align: center;">21</p> <p>1 was, was there anything else that you did in this case that</p> <p>2 isn't embodied in some of the materials that are in front of</p> <p>3 us.</p> <p>4 A. No.</p> <p>5 Q. So, for example, there isn't something new</p> <p>6 through contacting Kodak or some industrial hygienist that</p> <p>7 was on site at Kodak; right?</p> <p>8 A. Right.</p> <p>9 MR. MARTIN: By the way, for the benefit of the</p> <p>10 record, this article that he just mentioned on the</p> <p>11 sinterability of crystallizing glass that you guys looked at</p> <p>12 -- article is something that was produced the first time</p> <p>13 around.</p> <p>14 MR. SVESKA: I recognized it.</p> <p>15 A. I had a copy with no sticker on it, so.</p> <p>16 Q. Let's mark the Coene Affidavit and the attached</p> <p>17 MSDS's as Exhibit [4], and we'll come back to that. Let's</p> <p>18 mark Dr. Meggs's -- can I call this your supplemental</p> <p>19 opinion?</p> <p>20 A. Yes.</p> <p>21 Q. -- as Exhibit [5], including the attachments.</p> <p>22 And, Sir, if you would hand me the article we just discussed,</p> <p>23 and let's mark the Prado, P-R-A-D-O, Article in the Journal</p> <p>24 of Non-Crystalline Solids, entitled, On The Sinterability of</p> <p>25 Crystallizing Glass Powders, as Exhibit [6].</p>

<p style="text-align: center;">22</p> <p>1 Finishing up on the background questions, which 2 I wasn't yet quite done with, do you have any additional 3 cases that you've worked with Mr. Martin on since we last 4 talked?</p> <p>5 A. Not active. I don't think I've discussed 6 another case with him. There is one case that I've reviewed 7 files for him in the much -- before I reviewed this file, 8 which I think must be in total inactive status.</p> <p>9 Q. In your litigation consulting work, have you run 10 across anything since we last talked that bears any semblance 11 to this case?</p> <p>12 A. No.</p> <p>13 Q. During your last deposition, I asked you if you 14 had any opinions regarding respiratory protection issues, and 15 I believe you told me that you were not going there. I want 16 to confirm that is still the case.</p> <p>17 A. I will leave that to the experts in that area.</p> <p>18 Q. Is there anything that you have on your to-do 19 list, and, maybe, the first question there is, like looking 20 at the thoracic CT's, that you haven't done yet?</p> <p>21 A. I would like to look at them. I'd probably 22 have to take them into work to open them. But, again, I'm 23 not a radiologist, and I review films with radiologists and 24 may review them with our radiologists. But I will not give 25 my reading of the CT scans. Does that answer your question?</p>	<p style="text-align: center;">24</p> <p>1 percentage of Duraform GF versus DTM Laserite nylon? 2 A. Not specifically. 3 Q. So, even if we were able to quantify it in terms 4 of, let's say that the 80 percent was the nylon and 20 5 percent was the Duraform, that wouldn't matter in terms of, 6 again, any opinions you hold in this case? 7 A. That's correct. 8 Q. Next paragraph you cite to a CDC publication in 9 the Morbidity Mortality Weekly entitled Chronic Interstitial 10 Lung Disease in Nylon Flocking Industry Workers. Did I read 11 that correctly? 12 A. That's correct. 13 Q. And, then, a second article is identified from 14 Boag, B-O-A-G, from the American Journal of Surgical 15 Pathology entitled the Pathology of Interstitial Lung Disease 16 in Nylon Flock Workers. Did I read that correctly? 17 A. That's correct. 18 Q. Are these articles that you looked up after your 19 first deposition? 20 A. Yes. And there's a third article that I looked 21 up after this was written. 22 Q. We'll get to that, if you don't mind. It's 23 stated in here, in follow up to my report and earlier 24 deposition and in light of questioning by defense counsel, 25 that's suggesting that something that you were asked</p>
<p style="text-align: center;">23</p> <p>1 Q. It totally answered my question. Thank you. 2 But let me just make sure, because it was broader. Is there 3 anything else -- I gave you the CT. Was there anything else 4 that's on your to-do list relative to this case? 5 A. No. But I would qualify that to say I'm 6 available if Mr. Martin gives me something else to do, such 7 as testify at trial. 8 Q. I'm going to hand you back what we've marked as 9 Exhibit [5], the Supplemental Opinion and attached articles, 10 and I'm going to go through some of that content with you. 11 So, if you need to look at it, please do so. 12 The second paragraph relates to identifying that 13 Mr. Coene was using a product called Duraform GF, and DTM 14 Laserite, L-A-S-E-R-I-T-E, nylon. Did I get those right? 15 A. Correct. 16 Q. Do you have any idea as to the break down of the 17 use of those products? 18 A. All I have is Mr. Coene's testimony on that 19 issue. And I think -- it's either in his deposition or in 20 the Affidavit, he talked about the -- you're talking about 21 how much he used each one? 22 Q. Yes. Let me just get to the -- where I'm headed 23 with this, and, maybe, we don't even need to deal with it, as 24 I'm trying to deal with it. Does it matter to you for any 25 opinions you might hold in the case whether there was a high</p>	<p style="text-align: center;">25</p> <p>1 triggered this supplemental report; is that what happened? 2 A. That's correct. 3 Q. Was there any evidence, from your review of the 4 materials that you had at the time of your August 21st 5 deposition, that someone else had identified, or not 6 identified, for that matter, the potential for there being 7 some nylon flock disease? 8 A. Not that I recall. 9 Q. Have you looked at the studies in detail from 10 the MMWR or the American Journal of Surgical Pathology? 11 A. That's correct. I read the studies. 12 Q. Did you understand that they were not referring 13 to laser sintering? 14 A. That's correct. 15 Q. In fact, they were referring to a process 16 whereby nylon fibers were being cut, physically cut by some 17 type of a cutting device, and that shearing off was creating 18 respirable nylon particles; you gleaned that from those 19 articles? 20 A. That's correct. 21 Q. We'll get to how it is that you draw the 22 conclusion that there was a contributing factor, but I want 23 to start with, does this alter in any way your opinion that 24 Mr. Coene had exposure to silica that led to silicosis? 25 A. No. It had a triple whammy, if you'd like. Or</p>

<p style="text-align: center;">26</p> <p>1 we could say a triple whammy with a confounder. 2 Q. Well, let me guess, see if I can get the triple. 3 One being the supplemental, we're talking about the nylon and 4 the resin; right? 5 A. That's two. 6 Q. One -- then, I guess one must be the silica, 7 silicosis? 8 A. Nylon and resin. 9 Q. So you're counting resin as three? 10 A. Yes. 11 Q. Where is smoking in there; is that four? 12 A. That's the confounder. 13 Q. I see. What diagnosis do you believe Mr. Coene 14 has? 15 A. He has interstitial lung disease caused by 16 exposures to crystalline silica, nylon, respirable resins, 17 and, to some extent, smoking. Well, the interstitial lung 18 disease is not caused by smoking. It doesn't cause 19 interstitial lung disease. But he has the component of 20 obstructive lung disease, which can occur with all four of 21 those. 22 Q. You broke out nylon and resin as separate; 23 right? 24 A. That's correct. 25 Q. I get where it says that the DTM Laserite Nylon</p>	<p style="text-align: center;">28</p> <p>1 A. I didn't say the resin caused interstitial lung 2 disease. I said it was contributing. 3 Q. So we've got a clean record, I was just asking 4 you if the MSDS for that product, the Duraform GF, stated 5 that it could cause interstitial lung disease. 6 A. No, it does not. 7 Q. Relative to the comment you just made about a 8 contributing factor, are you planning on offering any 9 quantification as to what the resin or the nylon contributed? 10 A. Not a specific quantification, but that they can 11 contribute transient or reversible components. That is to 12 say, as he got further away from them, they could be a factor 13 in why he might improve. 14 Q. Because the materials cited to, for nylon and 15 resin, show that quite a few of the patients improve after 16 they are no longer exposed? 17 A. That's correct. For example, the nylon, they 18 fall into three groups. A group of complete resolution, a 19 group with permanent pulmonary function abnormalities, but 20 stable symptoms, and a group of progressive decline in 21 pulmonary function. So you have quite a variability in the 22 response to these materials, just as you have a variability 23 in the response to crystalline silicosis. 24 Q. In the materials you reviewed relative to the 25 nylon and resin component, did they tend to suggest to you</p>
<p style="text-align: center;">27</p> <p>1 was one component. I guess you're referring to the fact that 2 Duraform GF is a combination of glass and resin powder? 3 A. That's correct. 4 Q. What is the resin? 5 A. It's proprietary. 6 Q. So you don't know? 7 A. I don't know the specific nature of the resin, 8 the specific chemical. 9 Q. Do you know what class of chemicals or 10 components would be in that resin? 11 A. Respiratory irritants. 12 Q. How can you say respiratory irritants if you 13 don't have any identification of what it is? 14 A. Well, I know that the class of resins, as a 15 class, cause respiratory irritation. Look at the Material 16 Safety Data Sheet on any resin. Show me an MSDS on a resin 17 that doesn't say it's a respiratory irritant. 18 Q. Did the Duraform GF MSDS say it was a 19 respiratory irritant? 20 A. Well, just specifically, what it says, health 21 hazard data: inhalation, dust or vapors may be irritating to 22 the respiratory tract and cause coughing or sneezing. 23 Q. That's a general statement; that doesn't refer 24 to the fact that it can cause some interstitial lung disease; 25 right?</p>	<p style="text-align: center;">29</p> <p>1 that these are not exposures that require a latent period in 2 order to develop a lung problem? They're actually -- the 3 reports you've seen actually show the workers were still 4 being exposed at the time they developed the disease, right? 5 A. I would have to -- to answer that question, I 6 would have to look at the paper. My opinion is that they are 7 removed from the exposure, but I would really have to look to 8 see how long the ones with the progressive decline had been 9 removed. 10 Q. Here's where I'm headed with that, maybe this 11 will help you. And if you need to look at the articles, feel 12 free to do that. 13 Mr. Coene last worked with -- for Kodak with 14 these products, as I understand it, in 2002. Are you saying 15 that that contributing factor of the nylon and resin 16 continues to present, or are you saying it was a contributing 17 factor at some point in history? 18 A. I would have to say I don't know to what extent 19 the nylon might contribute, because in the article that looks 20 at the natural history over time, some people had a 21 progressive decline. 22 So, in Mr. Coene's case, I really can't say if 23 it's going to cause problems down the road, like we know 24 silicosis can. We know people can have a long latency 25 period. I don't know that it's known with nylon workers and</p>

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<p style="text-align: center;">30</p> <p>1 of those people who have persistent pulmonary function 2 deficit, but stable symptoms, I don't know what's going to 3 happen to them in 10 or 20 years. So, I cannot say.</p> <p>4 Q. You said in response, nylon; would you include 5 resin in that, as well, that you can't quantify or don't know 6 exactly to what extent there could be a continuing 7 contributing factor at this point?</p> <p>8 A. I really can't say in his case. What we do know 9 is that people with exposures to respiratory irritants can be 10 at risk to have problems. In fact, I think one of these 11 articles somewhere mentions a second hit phenomenon, that 12 they may be more susceptible to other irritant exposures down 13 the line. But I really can't render an opinion in an 14 individual patient, of what the probability of that would be.</p> <p>15 Q. Including Mr. Coene?</p> <p>16 A. That's correct.</p> <p>17 Q. So, to the extent the nylon and resin was a 18 contributing factor, as far as you can tell based on what you 19 have, it's all in the past, it's not in the present?</p> <p>20 A. As far as I know.</p> <p>21 Q. Is there a specific clinical -- well, let me 22 start that over. Since you broke nylon and resin out, let's 23 talk about them separately, but I suspect the answers might 24 be the same. Is there a particular clinical syndrome 25 associated with inhaling respirable nylon dust?</p>	<p style="text-align: center;">32</p> <p>1 to the deposition.</p> <p>2 A. Let me pull that article. I don't know if I 3 brought it, but I should have; I saw it in here yesterday. 4 I saw it yesterday.</p> <p>5 Q. Maybe I can help you out while you're looking 6 through the materials, Doctor. Doctor, let me ask you this 7 question; I'm going to refocus this. So would you agree, in 8 general, that the present -- the clinical presentation, 9 whether it's nylon or resin, would be patient specific and 10 variable?</p> <p>11 A. That was Exhibit [9], and I'm sure it's in here 12 somewhere.</p> <p>13 MR. MARTIN: I've got them all right here.</p> <p>14 DR. MEGGS: I think that was another -- I think 15 that was the only article on resin that I had.</p> <p>16 MR. MARTIN: For the record, he was referring to 17 Exhibit [9] in his first deposition.</p> <p>18 MR. SVESKA: I think I got that. Thank you.</p> <p>19 MR. MARTIN: Sorry. I just wanted to make sure 20 it's on the record.</p> <p>21 MR. SVESKA: Sure.</p> <p>22 A. The reference did not report -- it goes back to 23 what I said about respiratory irritants. They found a 24 respiratory irritant effect; they did not find progressive 25 pulmonary fibrosis in any of their subjects. So what I said</p>
<p style="text-align: center;">31</p> <p>1 A. No. It's actually variable.</p> <p>2 Q. What are the typical findings?</p> <p>3 A. Okay, I can read right here in this particular 4 story.</p> <p>5 Some cases have persistent interstitial lung 6 disease, despite having left the work place. Some develop 7 hypoxic respiratory failure and secondary pulmonary 8 hypertension 18 and 20 years after diagnosis, respectively. 9 Five cases resolved after leaving the work place.</p> <p>10 Compared with resolved cases, persistent cases 11 have lower diffusing capacity of the lung. Among exposed 12 workers employed 14.5 plus/minus 4.7 years, 5 had abnormal 13 chest x-rays, and none at baseline. The prevalence of wheeze 14 increased and so forth. So there's quite a variability in 15 what they observed in this series of patients.</p> <p>16 Q. So we're on the same page, you were referring to 17 the Turcotte, T-U-R-C-O-T-T-E, publication out of Chest 18 entitled Flock Workers Lung Disease?</p> <p>19 A. Correct.</p> <p>20 Q. Is there a particular -- well, strike that.</p> <p>21 Same answer as to resin?</p> <p>22 MR. MARTIN: The resin articles were in your 23 original package.</p> <p>24 DR. MEGGS: Right.</p> <p>25 MR. MARTIN: They were depos, they're attached</p>	<p style="text-align: center;">33</p> <p>1 about it being a respiratory irritant, it can cause decrease 2 in FEV1 and other factors. To my knowledge, the resin 3 doesn't cause any long-term latent problems, other than that, 4 that you can have with any exposure with respiratory 5 irritants where there's a phenomenon that the bronchial tree 6 can be what we call remodeled, which would make it more 7 susceptible to infections and other irritant exposures.</p> <p>8 Q. We don't have the evidence here that Mr. Coene's 9 respiratory tract has been remodeled, do we?</p> <p>10 A. It's definitely been changed, and you can see 11 that on the CT scan. Specifically, remodeling is used to 12 describe specific pathological changes that take place in the 13 airway after irritant exposures. And we don't have any 14 biopsy data on him, so I could not say specifically.</p> <p>15 I could say that in my experience with patients 16 who have had "remodeling," and this is something I have 17 studied, I would be very surprised if he didn't meet those 18 pathological criteria.</p> <p>19 Q. To be definitive, though, you need to have that 20 specimen and have it analyzed; correct?</p> <p>21 A. That's correct. Just like to make a diagnosis 22 of sarcoidosis.</p> <p>23 Q. And, to the extent Mr. Coene does have 24 remodeling, there's no evidence that you've seen that that 25 has impacted him; right?</p>

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<p style="text-align: center;">38</p> <p>1 COURT REPORTER'S NOTE: An off-the-record break 2 was taken from 1:21 P.M. until 1:30 P.M. 3 ON CONTINUED EXAMINATION CONDUCTED BY MR. 4 SVESKA: 5 Q. While we were on our short break, I fired up my 6 laptop computer and put that thumb drive in, and I now have 7 access to the materials that you were talking about. So I'm 8 going to hand my computer over to you, and I really just want 9 to know the answer to this question. Is there anything, 10 specifically, in this thumb drive, that we don't have 11 elsewhere, that you intend to specifically rely on for any 12 opinions you hold? 13 A. No. 14 Q. Thank you. That makes it much easier. Did you 15 re-read your deposition from August 21, 2013, in the recent 16 history? 17 A. Saturday night. 18 Q. Your opinion regarding silica, as expressed in 19 that deposition, is still your current opinion in this case? 20 A. Correct. 21 Q. Have there been any scientific articles 22 published since -- that you're aware of, since August 21, 23 2013, that relate to laser sintering causing silica, and that 24 silica to be respirable, and then causing disease? 25 A. No.</p>	<p style="text-align: center;">40</p> <p>1 deposition or the previous? 2 DR. MEGGS: To the previous. 3 MR. SVESKA: No. That's to this. It's got an 4 original sticker. 5 DR. MEGGS: Wasn't this in -- I think this was 6 an earlier Exhibit [2]. 7 MR. SVESKA: It was. It may have been, yes. 8 Q. Let me re-ask the question, because I want to 9 make sure it's clear. Relative to selective laser sintering 10 used in Kodak by Mr. Coene, do you have any articles that 11 show that that process creates respirable nylon or resin -- I 12 should say and/or resin, which leads to some disease process? 13 A. No. With the caveat that the lungs don't care 14 how the particles are produced. If you heat it in the oven 15 or heat it with a laser, they don't care. 16 Q. And we don't have anything from the work place 17 in this case showing any -- the presence of any respirable 18 nylon or resin; right? 19 A. To my knowledge, there was no monitoring or 20 exposure levels measured. 21 Q. Did you get ahold of anybody at the company that 22 makes the Duraform GF or the DTM products -- 23 A. No. 24 Q. -- in respect to any opinions you might hold in 25 this case?</p>
<p style="text-align: center;">39</p> <p>1 Q. So that testimony you gave in August of 2013 on 2 the issue of what literature existed or didn't exist is still 3 current as of today? 4 A. Yes. 5 Q. Our Exhibit [4] -- no, I'm sorry. This is [4]. 6 Where is your Affidavit, or your supplemental? 7 MR. MARTIN: Supplemental report? 8 MR. SVESKA: Right. 9 A. This is the stack. 10 Q. There we go. 11 A. It's on the bottom of the stack of the 12 attachments. 13 Q. Thank you. Relative to this supplemental 14 opinion, the materials that you've attached are the relevant 15 materials dealing with this subject matter? 16 A. For the supplemental report, yes. 17 Q. Relative to the supplemental report and the 18 nylon and resin exposure piece, do you have any scientific 19 literature, that we haven't yet looked at or talked about, 20 that expresses the opinion that laser sintering causes 21 respirable nylon or resin, which, then, goes on to cause some 22 sort of a disease? 23 A. I believe this is the most pertinent article. 24 But I believe it was Exhibit [6]. 25 MR. MARTIN: Is that Exhibit [6] to this</p>	<p style="text-align: center;">41</p> <p>1 A. No. 2 Q. Are you aware of any research they've done that 3 suggests that either of those products can cause any lung 4 disease? 5 A. No. 6 Q. There's never been -- and, of course, I know the 7 answer to this question, but I just want to get -- there's 8 never been an epidemiological study done, as you understand 9 it, in any group of laser sinterers, showing that they 10 developed any type of a lung disease associated with any 11 exposures in their field of laser sintering; right? 12 A. That's correct. 13 Q. As it pertains to the nylon and resin, we don't 14 know what, if any, dose was provided to Mr. Coene? 15 A. That's correct. 16 Q. We don't know the duration or the quantification 17 of any exposure of those two items? 18 A. That's correct. 19 Q. And, if we were to pull out -- strike that. Let 20 me lay the foundation. As a medical toxicologist, you're 21 obviously aware of the Bradford Hill Criteria? 22 A. Yes. 23 Q. If we were to do an analysis of the nylon and 24 resin exposure using the Bradford Hill Criteria, basically, 25 we wouldn't be able to, would we, because there's no specific</p>

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<p style="text-align: center;">42</p> <p>1 evidence of the elements under the Bradford Hill Criteria?</p> <p>2 MR. MARTIN: Objection to form.</p> <p>3 A. Well, the first thing I'd say is the Bradford</p> <p>4 Hill Criteria is a criteria for epidemiological studies, and</p> <p>5 they are suggested criteria. And they are not the criteria</p> <p>6 for making a diagnosis in an individual patient. They're</p> <p>7 criteria for the statistical weight in making a diagnosis,</p> <p>8 making the strength of association in epidemiological</p> <p>9 studies.</p> <p>10 Q. So, the answer is, you would not be able to</p> <p>11 apply the Bradford Hill Criteria, under these circumstances,</p> <p>12 to Mr. Coene's exposure to nylon and/or resin?</p> <p>13 A. That's generally the case, yes. You would need</p> <p>14 supporting data, which is animal studies and all sorts of</p> <p>15 things.</p> <p>16 Q. You'd need some published literature, and there</p> <p>17 is none relative to exposures like we're discussing here,</p> <p>18 where a laser sinterer allegedly gets exposed to respirable</p> <p>19 nylon or resins and causes a disease. That's never been</p> <p>20 reported in the medical literature.</p> <p>21 A. To my knowledge, nobody's reported Mr. Coene's</p> <p>22 case, or any other cases.</p> <p>23 Q. And you didn't write up Mr. Coene's case, I'm</p> <p>24 assuming?</p> <p>25 A. No.</p>	<p style="text-align: center;">44</p> <p>1 yourself. Okay?</p> <p>2 MR. MARTIN: I didn't get that. I thought you</p> <p>3 were back at square one.</p> <p>4 MR. SVESKA: No way. This is all focused.</p> <p>5 A. Okay.</p> <p>6 Q. So let me repeat the question.</p> <p>7 A. And my apologies. I took it more generally.</p> <p>8 Q. Is there any data, objective data, that you're</p> <p>9 aware of, which shows that selective laser sintering of the</p> <p>10 products we've discussed create respirable nylon and/or</p> <p>11 resin?</p> <p>12 A. No.</p> <p>13 Q. And, again, this is a little redundant, my</p> <p>14 apologies. And there's no published literature showing that</p> <p>15 selective laser sintering creates respirable nylon and/or</p> <p>16 resin which, then, leads to some lung disease down stream?</p> <p>17 A. That's correct.</p> <p>18 Q. Have you looked at any MSDS, Material Safety</p> <p>19 Data Sheet, for the products that we're discussing, that says</p> <p>20 either of these products can cause the production of</p> <p>21 respirable nylon and/or resin from laser sintering?</p> <p>22 A. They don't explicitly say that. They say that</p> <p>23 it's an inhalational hazard. So, indirectly, they say that.</p> <p>24 Q. When I asked you the series of questions a</p> <p>25 couple of minutes ago about selective laser sintering causing</p>
<p style="text-align: center;">43</p> <p>1 Q. So there's zero published literature expressing</p> <p>2 the opinion that laser sintering creates respirable nylon</p> <p>3 and/or resin which leads to a disease?</p> <p>4 A. Well, again, the -- how you heat a material</p> <p>5 doesn't matter, and what the laser does is heat the material.</p> <p>6 So we do have data on --</p> <p>7 Q. Well, let me ask --</p> <p>8 MR. MARTIN: Were you finished?</p> <p>9 MR. SVESKA: Yes, I don't want to interrupt you.</p> <p>10 MR. MARTIN: I thought you were pausing for a</p> <p>11 second, but I was looking down, so.</p> <p>12 A. Well, I'll yield the floor to you. Go ahead.</p> <p>13 Q. All right. And I'll help you out. Do we have</p> <p>14 any data, since you mentioned the word data, to show</p> <p>15 objectively that laser sintering causes the formation of</p> <p>16 respirable nylon and/or resin particles?</p> <p>17 A. No. The data we have shows that sintering can</p> <p>18 cause the formation of crystalline silica. Now, in the</p> <p>19 experiments, they didn't use lasers to produce the changes,</p> <p>20 but the silican molecules don't care how you zap them.</p> <p>21 Q. Sure. And let me just say this to make sure</p> <p>22 that we're clear. I had a chance to ask you hours worth of</p> <p>23 questions at your last deposition focused on silica. And,</p> <p>24 so, right now, I'm trying to only focus on nylon and resin,</p> <p>25 so I don't repeat myself, and you don't have to repeat</p>	<p style="text-align: center;">45</p> <p>1 respirable nylon or respirable resin, I want to change that</p> <p>2 rubric for just a minute and ask you the same types of</p> <p>3 questions, but slightly different.</p> <p>4 Is there any evidence that you've seen in the</p> <p>5 published literature, MSDS's, any materials that you've</p> <p>6 obtained, that supports that inhaling raw respirable either</p> <p>7 nylon or resin, essentially off gasses from the powder itself</p> <p>8 -- have you seen anything that supports that?</p> <p>9 MR. MARTIN: Objection to form.</p> <p>10 A. You mean if we had a block or pot of the</p> <p>11 material Duracef GF, or whatever, in this room, would we have</p> <p>12 a respiratory exposure?</p> <p>13 Q. No. Let me give you the attorney -- the fun</p> <p>14 attorney analogy. If I held a 5-pound bag of these products</p> <p>15 up above this table and dropped them on this table, and there</p> <p>16 was a cloud of stuff that emanated from that, from that</p> <p>17 dropping, has anybody ever published or suggested that A)</p> <p>18 there is respirable nylon or resin in there, and B) that that</p> <p>19 leads to some disease process in the lung?</p> <p>20 A. Well, first, if you did this, I would run and</p> <p>21 hold my breath. And you said if it produced a cloud of dust.</p> <p>22 That's going to be inhaled, you know. Now, I don't know if</p> <p>23 anybody's ever published I dropped a bag, 5-pound bag of</p> <p>24 Duracef GF on a table and measured the dust.</p> <p>25 I think that would be a funny experiment to do,</p>

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<p style="text-align: right;">50</p> <p>1 formulating a differential diagnosis, considering 2 possibilities, for example, is this silicosis, is it nylon 3 flock workers's disease, is it sarcoidosis, is it lung 4 cancer. And, then, you arrive at a diagnosis considering 5 what's known about the materials and what diseases they can 6 cause, and how they align with the person's illness.</p> <p>7 Q. As a physician and a toxicologist who may 8 evaluate people's toxic exposures in a clinical setting, what 9 kind of causation information do you generally have to rely 10 upon?</p> <p>11 A. Well, you rely upon the textbooks of medicine 12 and the collective clinical experience of physicians, and the 13 medical literature that supports this collective information. 14 In more advanced issues, such as, does cigarette smoking 15 cause lung cancer, you can rely on epidemiological studies, 16 you can rely on animal models. But you use the data you have 17 to arrive at an opinion.</p> <p>18 Q. In terms of the data that you have to arrive at 19 an opinion with regard to an individual patient like Mr. 20 Coene, is it normal for a physician to rely upon the exposure 21 history provided by the patient?</p> <p>22 A. Yes.</p> <p>23 Q. Why is that important?</p> <p>24 A. Well, that's the -- you know, in medical school, 25 they say history is 90 percent of your diagnosis. And where</p>	<p style="text-align: right;">52</p> <p>1 A. Yes. 2 Q. And what is the form? 3 A. Well, it's powder. 4 Q. And do powders traditionally have inhalational 5 hazards associated with them? 6 A. Yes. 7 Q. Are inhalational hazards identified in both of 8 these MSDS Sheets? 9 A. Yes. 10 Q. Do these MSDS Sheets make a recommendation as to 11 what precautions to take against the inhalational hazards? 12 A. Yes. 13 Q. What do they recommend? 14 A. A Niosh approved respirator for dust, mist and 15 fumes, appropriate to the airborne concentration. 16 Q. What was your understanding as to whether Mr. 17 Coene used a Niosh approved respirator? 18 A. My understanding is he did not. 19 Q. You reviewed his deposition; do you know whether 20 he wore respiratory protection? 21 A. I believe, from his deposition, he wore a 3M 22 mask that wasn't approved for fumes. But, again, I'll leave 23 that to the expert on respirators to discuss exactly how good 24 that respirator was for the dust, fumes and mist. 25 Q. Fair enough. Now, in -- as a clinician,</p>
<p style="text-align: right;">51</p> <p>1 the person worked, what he did at work, what he was exposed 2 to, the whole description is very important.</p> <p>3 Q. Do you have to perform a Bradford Hill Criteria 4 analysis before you can make an individual diagnosis based 5 upon a patient's work history and exposure history as 6 compared to the medical literature?</p> <p>7 A. No.</p> <p>8 Q. And why is that?</p> <p>9 A. Because it's not -- again, it's the criteria for 10 epidemiological studies, not for arriving at a diagnosis in 11 an individual patient.</p> <p>12 Q. In terms of arriving at a diagnosis in an 13 individual patient, you've had the opportunity to review 14 Defendant's Exhibit [4], the Affidavit of Mr. Coene with the 15 attached exhibits, the MSDS Sheets?</p> <p>16 A. That's correct.</p> <p>17 Q. And when you have the opportunity, as a 18 physician, to gain additional exposure information such as 19 MSDS Sheets, that's helpful; right?</p> <p>20 A. Yes.</p> <p>21 Q. If we look at the MSDS Sheets for Duraform GF, 22 and I think the Laserite Nylon -- I'll hand those to you, 23 which are attached to the Affidavit -- do those two MSDS 24 Sheets describe the form of this substance, how it's 25 presented to the user?</p>	<p style="text-align: right;">53</p> <p>1 physician and a toxicologist, when you identify a patient 2 who's working with powder that's respirable, that requires 3 respiratory protection such as in Bob Coene, are those the 4 kinds of typical things that toxicologists and physicians 5 look at to identify whether there's an inhalational hazard?</p> <p>6 A. Yes.</p> <p>7 Q. Does a toxicologist have to be able to find an 8 epidemiological study on laser sintering before he can 9 determine whether or not a person operating and using a laser 10 sintering device has an inhalational hazard?</p> <p>11 A. No.</p> <p>12 Q. How come?</p> <p>13 A. Well, you have the Material Safety Data Sheet 14 stating that it's an inhalational hazard. You have the 15 description of what happened to Mr. Coene. Again, going 16 back, you look at the exposures, you look at what the disease 17 process is, and whether or not the exposures could produce 18 the disease. It's not a quantitative process. I think we 19 discussed that in my first deposition. You have a dose 20 response curve, and some people get the disease at a much 21 lower dose, and other people remain healthy with even a 22 higher exposure.</p> <p>23 Q. Is that the discussion in the Murray-Nadal Text 24 that you brought to your first deposition?</p> <p>25 A. They do discuss, I believe, with regard to</p>

<p style="text-align: center;">54</p> <p>1 crystalline silica, that you can't use the standards and 2 quantitatively make a diagnosis. The criteria for diagnosing 3 silicosis is a history of exposure and radiographic evidence 4 consistent with silicosis. That is the criteria for making a 5 diagnosis.</p> <p>6 Q. And did Mr. Coene meet that criteria?</p> <p>7 A. Yes.</p> <p>8 Q. And that opinion is based upon reasonable 9 medical probability?</p> <p>10 A. Yes.</p> <p>11 Q. The -- one question you answered to Kim, and I 12 don't know if I remember exactly the specific answer, but you 13 said there may not be any epidemiological studies on laser 14 sintering; there are studies on the underlying agents 15 associated with that laser sintering; do you recall that 16 answer?</p> <p>17 A. I do recall having that opinion and stating it.</p> <p>18 Q. And so, if I could follow up on that, when we're 19 talking about the underlying agents associated with laser 20 sintering in the studies that you looked at, what kind of 21 studies, and with regard to what agents, are you looking at?</p> <p>22 A. Well, with regard to the crystalline silica, we 23 have good studies that show that when you take --</p> <p>24 MR. SVESKA: Let me place an objection. And I 25 don't want to interrupt, but I don't know -- Mr. Martin is</p>	<p style="text-align: center;">56</p> <p>1 the kinds of industries that are at risk for silicosis?</p> <p>2 A. That's correct.</p> <p>3 Q. And so, while laser sintering may not be a 4 specific -- there may not be specific epidemiological studies 5 on laser sintering because that industry deals -- or at least 6 that job task deals with melting glass and/or fiberglass, are 7 there representative exposure studies in the literature 8 identifying causation of silicosis in those industries?</p> <p>9 A. Yes. According to the textbooks; that's 10 textbook information.</p> <p>11 MR. MARTIN: I think that's it.</p> <p>12 ON EXAMINATION CONDUCTED BY MR. KIM J. SVESKA:</p> <p>13 Q. A few follow up. Do you know when Mr. Coene was 14 first laser sintering?</p> <p>15 A. I have that in the record, yes. I've seen a 16 couple of different numbers, but 1992 came about. But I 17 think -- I have it in here, specifically.</p> <p>18 Q. No, don't bother to look back.</p> <p>19 A. Yes.</p> <p>20 Q. I can make this much easier than that. Let's 21 just say it was '95, just so I can do the math very easily. 22 That's 20 years between '95 and 2015; right?</p> <p>23 A. Correct.</p> <p>24 Q. So, in that entire time, has there ever been a 25 single case report that says laser sintering causes the</p>
<p style="text-align: center;">55</p> <p>1 not necessarily asking you inappropriate questions. But my 2 concern was to try to stay focused on nylon and resin as part 3 of the supplemental new opinion, and not re-plow all the 4 silica stuff. But go ahead.</p> <p>5 MR. MARTIN: Just trying to clear up the 6 Bradford Hill question.</p> <p>7 MR. SVESKA: Then, I'm just throwing my 8 objection out there.</p> <p>9 Q. Go ahead, Doctor.</p> <p>10 A. Well, back to silica, we have very good data to 11 indicate that heating amorphous silica will produce 12 crystalline silica at a huge range of temperatures and 13 pressures. We have the description that there was dust 14 generated before and after this heating process, so, I don't 15 think that's really an issue.</p> <p>16 We also have data that says it's almost 17 impossible to produce pure amorphous silica.</p> <p>18 Q. Without -- what do you mean by pure amorphous 19 silica; what would make that --</p> <p>20 A. Without some crystalline silica in it.</p> <p>21 Q. In the context or this Bradford Hill question 22 and this line of questioning you that I have been engaging 23 in, did the literature that you brought to your first 24 deposition that we've kind of touched on here identify 25 industries associated with glass and/or fiberglass as being</p>	<p style="text-align: center;">57</p> <p>1 release of respirable silica, nylon or resin, which leads to 2 a disease?</p> <p>3 A. I haven't seen a case report on that.</p> <p>4 Q. And that would be one of the lowest levels in 5 terms of the hierarchy of, shall we say evidence, medical 6 evidence, scientific evidence of a disease being caused by an 7 exposure, that would be considered the low level; right?</p> <p>8 A. In terms of published literature, yes.</p> <p>9 Q. Have you ever been to a meeting, a toxicology 10 meeting or other meeting, where it has been suggested or a 11 case presented or a poster presented, where someone said 12 laser sintering triggers respirable nylon, resin or silica 13 that leads to disease?</p> <p>14 A. No.</p> <p>15 Q. And, of course, that scenario is not present in 16 any type of a textbook, as far as you know, either; right?</p> <p>17 A. That's correct. Where you've generated the 18 crystalline silica by laser sintering. There are analogous 19 processes by which it's been generated.</p> <p>20 Q. Well, we talked about that, analogous process, 21 at length during your last deposition. That's still accurate 22 as of today; right?</p> <p>23 A. Correct.</p> <p>24 Q. So, to maybe understand this completely, what 25 you're telling us is that Mr. Coene is the first ever case</p>